

Mattec/Roboshot PLC Interface

Application Note

720-0142

Revision - D

for the
MATTEC ProHelp System



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The **Roboshot** PLC interface, as implemented by **Mattec** for the MIU-10X and TSMIU series of machine interface units, is an RS-232, 3-wire connection running at 4800 baud with frames consisting of 7 data bits, 2 stop bits, and even parity. A null-modem connection must be present at the **Roboshot**'s 25-pin female D-sub connector which consists of tying pin # 4 and pin # 5 together, as well as separately tying pin # 6, pin # 8 and pin # 20 together at the 25-pin D-sub. The Tx (pin # 2), Rx (pin # 3), and Gnd (pin # 7) wires from the **Roboshot**'s 25-pin sub-D connector are connected to the Comm # 3 port of a MIU-10X or TSMIU at the MIU's connector TB5, specifically on terminals TB5-3, TB5-4, and TB5-5 respectively. Additionally the shunt pins on JA7-JE7 must be in the RS-232 configuration, these being the lower left shunt settings (see the **MIU Wiring/Installation Instruction** manual for more information about these settings).

The **Roboshot** PLC has a number of data fields that can be accessed via the **Mattec** PLC interface. To access any individual data field, enter the corresponding SBC1, SBC2, Offset, Length, and Gain in the Roboshot PLC setup page in the Host's MIU-Install menu. The following is a list of available data fields with the corresponding PLC setup information. The Command for the Roboshot Interface requires 2 Command Bytes in Mattec to be translated into "Roboshot" language. Mattec has chosen to translate the first command byte, called SBC1 in Mattec terminology as follows:

Mattec SBC1 Field	Roboshot Cmd1 Specifier	Field	Type of Data
1	E	0 – 8	Max / Min Data
2	F	0 – 2	Molding Data
3	I	0 – 9	Molding Data
4	J	0 – 1	Molding Data
5	L	0 – 5	Process Monitor Data
6	N	0 – 1	Diagnostic Data
7	T	0 – 6	Machine Status Data

Note that this is a complete list of all possible commands and data. Process Monitoring Data for the Mattec implementation uses SBC1 = 5 and SBC2 = 4. Those have been highlighted in this application note.

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
Max cavity pressure	E	1	0	15	6	1
Max inj pressure	E	1	0	9	6	1
Max inj steps	E	1	0	1	2	1
Max inj velocity	E	1	0	3	6	1
Max pack pressure	E	1	1	3	6	1
Max pack steps	E	1	1	1	2	1
Max pack time	E	1	1	9	6	1
Max back pressure	E	1	2	3	6	1
Max back velocity	E	1	2	21	6	1
Max cool time	E	1	2	27	6	1
Max extruder delay	E	1	2	33	6	1
Max extruder steps	E	1	2	1	2	1
Max screw speed	E	1	2	9	6	1
Max shot size	E	1	2	15	6	1
Max clamp open limit	E	1	3	1	6	1
Max clamp open timer	E	1	3	19	6	1
Max clamp speed	E	1	3	7	6	1
Parameter	Roboshot	Mattec	Mattec	Offset	Length	Gain

	CMD 1	SBC1	SBC2			
Max mold protect	E	1	3	13	6	1
Max eject count	E	1	4	13	6	1
Max ejector dwell	E	1	4	19	6	1
Max ejector stroke	E	1	4	1	6	1
Max ejector velocity	E	1	4	7	6	1
Max clamp force	E	1	5	19	6	1
Max cycle alarm time	E	1	5	37	6	1
Max dwell before injection	E	1	5	13	6	1
Max injection unit stroke	E	1	5	1	6	1
Max screw speed – purge	E	1	5	31	6	1
Min clamp force	E	1	5	25	6	1
Min injection unit stroke	E	1	5	7	6	1
Max alarm band temp	E	1	6	1	6	1
Min interval temp print	E	1	6	7	6	1
Max barrel 01 temp	E	1	7	13	6	1
Max barrel 01 temp	E	1	7	49	6	1
Max barrel 02 temp	E	1	7	19	6	1
Max barrel 02 temp	E	1	7	55	6	1
Max barrel 03 temp	E	1	7	25	6	1
Max barrel 03 temp	E	1	7	61	6	1
Max barrel 04 temp	E	1	7	31	6	1
Max barrel 04 temp	E	1	7	67	6	1
Max barrel 05 temp	E	1	7	37	6	1
Max feed throat temp	E	1	7	43	6	1
Max nozzle 01 temp	E	1	7	1	6	1
Max nozzle 02 temp	E	1	7	7	6	1
Ext torque jdg sw (1)	F	2	0	1	2	1
Ext torque jdg sw (2)	F	2	0	3	2	1
Ext torque jdg sw (3)	F	2	0	5	2	1
Ext torque jdg sw (4)	F	2	0	7	2	1
Ext torque jdg sw (5)	F	2	0	9	2	1
Ext torque jdg sw (6)	F	2	0	11	2	1
Ext trq mnt end pos (1)	F	2	0	49	6	1
Ext trq mnt end pos (2)	F	2	0	55	6	1
Ext trq mnt end pos (3)	F	2	0	61	6	1
Ext trq mnt end pos (4)	F	2	0	67	6	1
Ext trq mnt end pos (5)	F	2	0	73	6	1
Ext trq mnt end pos (6)	F	2	0	79	6	1
Ext trq mnt start pos (1)	F	2	0	13	6	1
Ext trq mnt start pos (2)	F	2	0	19	6	1
Ext trq mnt start pos (3)	F	2	0	25	6	1
Ext trq mnt start pos (4)	F	2	0	31	6	1
Ext trq mnt start pos (5)	F	2	0	37	6	1
Parameter	Roboshot	Mattec	Mattec	Offset	Length	Gain

	CMD 1	SBC1	SBC2			
Ext trq mnt start pos (6)	F	2	0	43	6	1
Ext trq mnt start time (1)	F	2	0	85	6	1
Ext trq mnt start time (2)	F	2	0	91	6	1
Ext trq mnt start time (3)	F	2	0	97	6	1
Ext trq mnt start time (4)	F	2	0	103	6	1
Ext trq mnt start time (5)	F	2	0	109	6	1
Ext trq mnt start time (6)	F	2	0	115	6	1
Ext mnt lower torque (1)	F	2	1	73	6	1
Ext mnt lower torque (2)	F	2	1	79	6	1
Ext mnt lower torque (3)	F	2	1	85	6	1
Ext mnt lower torque (4)	F	2	1	91	6	1
Ext mnt lower torque (5)	F	2	1	97	6	1
Ext mnt lower torque (6)	F	2	1	103	6	1
Ext mnt sampling time	F	2	1	109	6	1
Ext mnt upper torque (1)	F	2	1	37	6	1
Ext mnt upper torque (2)	F	2	1	43	6	1
Ext mnt upper torque (3)	F	2	1	49	6	1
Ext mnt upper torque (4)	F	2	1	55	6	1
Ext mnt upper torque (5)	F	2	1	61	6	1
Ext mnt upper torque (6)	F	2	1	67	6	1
Ext trq mnt end time (1)	F	2	1	1	6	1
Ext trq mnt end time (2)	F	2	1	7	6	1
Ext trq mnt end time (3)	F	2	1	13	6	1
Ext trq mnt end time (4)	F	2	1	19	6	1
Ext trq mnt end time (5)	F	2	1	25	6	1
Ext trq mnt end time (6)	F	2	1	31	6	1
Extruder start position	F	2	1	111	6	1
Injection delay	F	2	2	2	6	1
Lock-up delay	F	2	2	9	6	1
Lock-up velocity	F	2	2	15	6	1
Pre-injection mode	F	2	2	1	2	1
Injection steps	I	3	0	1	2	1
10 th injection velocity	I	3	0	57	6	1
1 st Injection switch pos	I	3	0	63	6	1
1 st injection velocity	I	3	0	3	6	1
2 nd Injection switch pos	I	3	0	69	6	1
2 nd injection velocity	I	3	0	9	6	1
3 rd Injection switch pos	I	3	0	75	6	1
3 rd injection velocity	I	3	0	15	6	1
4 th Injection switch pos	I	3	0	81	6	1
4 th injection velocity	I	3	0	21	6	1
Parameter	Roboshot	Mattec	Mattec	Offset	Length	Gain

	CMD 1	SBC1	SBC2			
5 th Injection switch pos	I	3	0	87	6	1
5 th injection velocity	I	3	0	27	6	1
6 th Injection switch pos	I	3	0	93	6	1
6 th injection velocity	I	3	0	33	6	1
7 th Injection switch pos	I	3	0	99	6	1
7 th injection velocity	I	3	0	39	6	1
8 th Injection switch pos	I	3	0	105	6	1
8 th injection velocity	I	3	0	45	6	1
9 th Injection switch pos	I	3	0	111	6	1
9 th injection velocity	I	3	0	51	6	1
Extruder delay pressure	I	3	1	39	6	1
Extruder delay time	I	3	1	81	6	1
Pack pressure 1	I	3	1	3	6	1
Pack pressure 2	I	3	1	9	6	1
Pack pressure 3	I	3	1	15	6	1
Pack pressure 4	I	3	1	21	6	1
Pack pressure 5	I	3	1	27	6	1
Pack pressure 6	I	3	1	33	6	1
Pack steps	I	3	1	1	2	1
Pack time 1	I	3	1	45	6	1
Pack time 2	I	3	1	51	6	1
Pack time 3	I	3	1	57	6	1
Pack time 4	I	3	1	63	6	1
Pack time 5	I	3	1	69	6	1
Pack time 6	I	3	1	75	6	1
Back pressure 1	I	3	2	3	6	1
Back pressure 2	I	3	2	9	6	1
Back pressure 3	I	3	2	15	6	1
Back pressure 4	I	3	2	21	6	1
Back pressure 5	I	3	2	27	6	1
Back pressure 6	I	3	2	33	6	1
Extruder steps	I	3	2	1	2	1
Extruder switch point 1	I	3	2	75	6	1
Extruder switch point 2	I	3	2	81	6	1
Extruder switch point 3	I	3	2	87	6	1
Extruder switch point 4	I	3	2	93	6	1
Extruder switch point 5	I	3	2	99	6	1
Screw speed 1	I	3	2	39	6	1
Screw speed 2	I	3	2	45	6	1
Screw speed 3	I	3	2	51	6	1
Screw speed 4	I	3	2	57	6	1
Parameter	Roboshot	Mattec	Mattec	Offset	Length	Gain

	CMD 1	SBC1	SBC2			
Screw speed 5	I	3	2	63	6	1
Screw speed 6	I	3	2	69	6	1
Breakaway velocity	I	3	3	67	6	1
Clamp open limit	I	3	3	1	6	1
Clamp open timer	I	3	3	84	6	1
Close 1 st velocity	I	3	3	31	6	1
Close 2 nd velocity	I	3	3	37	6	1
Close set point	I	3	3	13	6	1
Close slow velocity	I	3	3	43	6	1
Close switch set point	I	3	3	7	6	1
Ejector start position	I	3	3	61	6	1
Mold protect force	I	3	3	25	6	1
Mold touch position	I	3	3	19	6	1
Open fast set point	I	3	3	49	6	1
Open fast velocity	I	3	3	73	6	1
Open slow set point	I	3	3	55	6	1
Open slow velocity	I	3	3	79	6	1
Dwell at forward	I	3	4	39	6	1
Dwell at mid	I	3	4	45	6	1
Dwell at pre-eject	I	3	4	103	6	1
Dwell at reverse	I	3	4	51	6	1
Eject interlock	I	3	4	67	2	1
Eject skip	I	3	4	69	2	1
Ejector count	I	3	4	57	6	1
Ejector mode	I	3	4	1	2	1
External signal eject	I	3	4	65	2	1
Forward position	I	3	4	21	6	1
Forward velocity 1	I	3	4	3	6	1
Forward velocity 2	I	3	4	9	6	1
Pre-eject forward position	I	3	4	79	6	1
Pre-eject forward velocity	I	3	4	91	6	1
Pre-eject reverse position	I	3	4	85	6	1
Pre-eject reverse velocity	I	3	4	97	6	1
Pre-ejector delay	I	3	4	73	6	1
Pre-ejector mode	I	3	4	71	2	1
Reverse position	I	3	4	33	6	1
Reverse velocity	I	3	4	15	6	1
Stop position	I	3	4	27	6	1
2 nd step start mode	I	3	4	63	2	1
Acceleration ramp	I	3	5	49	6	1
Cool time	I	3	5	73	6	1
Decompress distance	I	3	5	61	6	1
Decompress velocity	I	3	5	67	6	1

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
Dwell before injection	I	3	5	41	6	1
Injection high time	I	3	5	29	6	1
Kind of material	I	3	5	47	2	1
Max injection mode	I	3	5	23	6	1
Max pack velocity	I	3	5	35	6	1
Pressure transfer step	I	3	5	21	2	1
Shot size	I	3	5	55	6	1
Transfer cavity pressure	I	3	5	15	6	1
Transfer mode	I	3	5	1	2	1
Transfer position	I	3	5	3	6	1
Transfer pressure	I	3	5	9	6	1
Barrel 1 temperature	I	3	6	37	6	1
Barrel 2 temperature	I	3	6	43	6	1
Barrel 3 temperature	I	3	6	49	6	1
Barrel 4 temperature	I	3	6	55	6	1
Barrel 5 temperature	I	3	6	61	6	1
Feed throat temperature	I	3	6	67	6	1
Hold temp (mold)	I	3	6	19	6	1
Hold temp (nozzle, barrel)	I	3	6	13	6	1
Mold 1 temperature	I	3	6	73	6	1
Mold 2 temperature	I	3	6	79	6	1
Mold 3 temperature	I	3	6	85	6	1
Mold 4 temperature	I	3	6	91	6	1
Mold temp control mode	I	3	6	3	2	1
Nozzle 1 temperature	I	3	6	25	6	1
Nozzle 2 temperature	I	3	6	31	6	1
Nozzle barrel temp control	I	3	6	1	2	1
Operation mode	I	3	6	5	2	1
Shutdown sequence mode	I	3	6	11	2	1
Temp prnt interval (m)	I	3	6	7	2	1
Temp prnt interval (s)	I	3	6	9	2	1
Upper feed throat temp	I	3	7	43	6	1
Upper temp – barrel 1	I	3	7	13	6	1
Upper temp – barrel 2	I	3	7	19	6	1
Upper temp – barrel 3	I	3	7	25	6	1
Upper temp – barrel 4	I	3	7	31	6	1
Upper temp – barrel 5	I	3	7	37	6	1
Upper temp – nozzle 1	I	3	7	1	6	1
Upper temp – nozzle 2	I	3	7	7	6	1
Upper temp mold 1	I	3	7	49	6	1
Upper temp mold 2	I	3	7	55	6	1
Upper temp mold 3	I	3	7	61	6	1
Upper temp mold 4	I	3	7	67	6	1

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
Lower feed throat temp	I	3	8	43	6	1
Lower temp – barrel 1	I	3	8	13	6	1
Lower temp – barrel 2	I	3	8	19	6	1
Lower temp – barrel 3	I	3	8	25	6	1
Lower temp – barrel 4	I	3	8	31	6	1
Lower temp – barrel 5	I	3	8	37	6	1
Lower temp – nozzle 1	I	3	8	1	6	1
Lower temp – nozzle 2	I	3	8	7	6	1
Lower temp mold 1	I	3	8	49	6	1
Lower temp mold 2	I	3	8	55	6	1
Lower temp mold 3	I	3	8	61	6	1
Lower temp mold 4	I	3	8	67	6	1
Alarm buzzer	I	3	9	83	2	1
Clamp force	I	3	9	51	6	1
Ejector retract	I	3	9	87	2	1
External outlet	I	3	9	91	2	1
Injection unit retract	I	3	9	9	6	1
Parts removal detector	I	3	9	89	2	1
Robot mode	I	3	9	81	2	1
Shut-off nozzle	I	3	9	85	2	1
Sprue break mode	I	3	9	1	2	1
Sprue break timer	I	3	9	3	6	1
Auto purge signal 1-1	J	4	0	91	2	1
Auto purge signal 1-2	J	4	0	93	2	1
Auto purge signal 1-3	J	4	0	95	2	1
Auto purge signal 1-4	J	4	0	97	2	1
Auto purge signal 1-5	J	4	0	99	2	1
Auto purge signal 2-1	J	4	0	101	2	1
Auto purge signal 2-2	J	4	0	103	2	1
Auto purge signal 2-3	J	4	0	105	2	1
Auto purge signal 2-4	J	4	0	107	2	1
Auto purge signal 2-5	J	4	0	109	2	1
Auto purge signal 3-1	J	4	0	111	2	1
Auto purge signal 3-2	J	4	0	113	2	1
Auto purge signal 3-3	J	4	0	115	2	1
Auto purge signal 3-4	J	4	0	117	2	1
Auto purge signal 3-5	J	4	0	119	2	1
Auto purge switch 1	J	4	0	1	2	1
Auto purge switch 2	J	4	0	3	2	1
Auto purge switch 3	J	4	0	5	2	1
Auto purge switch 4	J	4	0	7	2	1
Auto purge switch 5	J	4	0	9	2	1
Purge count 1	J	4	0	11	2	1

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
Purge count 2	J	4	0	13	2	1
Purge count 3	J	4	0	15	2	1
Purge count 4	J	4	0	17	2	1
Purge count 5	J	4	0	19	2	1
Purge switch count 1	J	4	0	81	2	1
Purge switch count 2	J	4	0	83	2	1
Purge switch count 3	J	4	0	85	2	1
Purge switch count 4	J	4	0	87	2	1
Purge switch count 5	J	4	0	89	2	1
Screw speed – purge 1	J	4	0	21	6	1
Screw speed – purge 2	J	4	0	27	6	1
Screw speed – purge 3	J	4	0	33	6	1
Screw speed – purge 4	J	4	0	39	6	1
Screw speed – purge 5	J	4	0	45	6	1
Screw stroke – purge 1	J	4	0	51	6	1
Screw stroke – purge 2	J	4	0	57	6	1
Screw stroke – purge 3	J	4	0	63	6	1
Screw stroke – purge 4	J	4	0	69	6	1
Screw stroke – purge 5	J	4	0	75	6	1
Base cycle time	J	4	1	17	6	1
Before complete	J	4	1	11	6	1
Cav press alarm set point	J	4	1	57	6	1
Cavity pressure alarm	J	4	1	55	2	1
Cont NG alarm mode	J	4	1	23	2	1
Continuous NG alarm	J	4	1	25	6	1
Inj pressure alarm set point	J	4	1	49	6	1
Injection pressure alarm	J	4	1	47	2	1
Product manag (container)	J	4	1	39	2	1
Product management	J	4	1	1	2	1
Products shot	J	4	1	3	8	1
Products shot (container)	J	4	1	41	6	1
Start-up NG mode	J	4	1	31	2	1
Start-up NG number	J	4	1	33	6	1
Air eject output time A	J	4	2	15	6	1
Air eject output time B	J	4	2	35	6	1
Air eject output time C	J	4	2	55	6	1
Air eject start time A	J	4	2	9	6	1
Air eject start time B	J	4	2	29	6	1
Air eject start time C	J	4	2	49	6	1
Air ejector A	J	4	2	1	2	1
Air ejector B	J	4	2	21	2	1
Air ejector C	J	4	2	41	2	1
Air ejector start pos A	J	4	2	3	6	1

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
Air ejector start pos B	J	4	2	23	6	1
Air ejector start pos C	J	4	2	43	6	1
Clamp open mode (rack)	J	4	2	89	2	1
Core pull seq number	J	4	2	83	6	1
Core set seq number	J	4	2	77	6	1
Core switch	J	4	2	75	2	1
Eject start wait	J	4	2	91	2	1
Rack motor output time	J	4	2	69	6	1
Rack motor start position	J	4	2	63	6	1
Rack motor switch	J	4	2	61	2	1
Start delay timer (rack)	J	4	2	93	6	1
Cycle time alarm	J	4	3	85	6	1
Judge by fill time	J	4	3	1	2	1
Judge by min cushion	J	4	3	7	2	1
Judge by peak inj pressure	J	4	3	11	2	1
Judge by recovery position	J	4	3	9	2	1
Judge by recovery time	J	4	3	3	2	1
Judge by V-P position	J	4	3	5	2	1
Lower limit – inj time	J	4	3	49	6	1
Lower limit – M-cushion	J	4	3	67	6	1
Lower limit – peak press	J	4	3	79	6	1
Lower limit – recov pos	J	4	3	73	6	1
Lower limit – recov time	J	4	3	55	6	1
Lower limit – V-P position	J	4	3	61	6	1
Upper limit – inj time	J	4	3	13	6	1
Upper limit – M-cushion	J	4	3	31	6	1
Upper limit – peak prs	J	4	3	43	6	1
Upper limit – recov pos	J	4	3	37	6	1
Upper limit – recov time	J	4	3	19	6	1
Upper limit – V-P position	J	4	3	25	6	1
Integral calc time – ch 1 (I)	J	4	4	73	6	1
Integral calc time – ch 2 (I)	J	4	4	79	6	1
Integral calc time – ch 3 (I)	J	4	4	85	6	1
Integral calc time – ch 4 (I)	J	4	4	91	6	1
Integral calc time – ch 5 (I)	J	4	4	97	6	1
Integral calc time – ch 6 (I)	J	4	4	103	6	1
Proportion band – ch 1 (P)	J	4	4	1	6	1
Proportion band – ch 2 (P)	J	4	4	7	6	1
Proportion band – ch 3 (P)	J	4	4	13	6	1
Proportion band – ch 4 (P)	J	4	4	19	6	1
Proportion band – ch 5 (P)	J	4	4	25	6	1
Proportion band – ch 6 (P)	J	4	4	31	6	1
Proportion band – ch 7 (P)	J	4	4	37	6	1

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
Proportion band – ch 8 (P)	J	4	4	43	6	1
Proportion band – ch 9 (P)	J	4	4	49	6	1
Proportion bnd – ch 10 (P)	J	4	4	55	6	1
Proportion bnd – ch 11 (P)	J	4	4	61	6	1
Proportion bnd – ch 12 (P)	J	4	4	67	6	1
Differential time – ch 1 (D)	J	4	5	37	6	1
Differential time – ch 2 (D)	J	4	5	43	6	1
Differential time – ch 3 (D)	J	4	5	49	6	1
Differential time – ch 4 (D)	J	4	5	55	6	1
Differential time – ch 5 (D)	J	4	5	61	6	1
Differential time – ch 6 (D)	J	4	5	67	6	1
Differential time – ch 7 (D)	J	4	5	73	6	1
Differential time – ch 8 (D)	J	4	5	79	6	1
Differential time – ch 9 (D)	J	4	5	85	6	1
Diffrential time – ch 10 (D)	J	4	5	91	6	1
Diffrential time – ch 11 (D)	J	4	5	97	6	1
Diffrential time – ch 12 (D)	J	4	5	103	6	1
Integral calc time – ch 7 (I)	J	4	5	1	6	1
Integral calc time – ch 8 (I)	J	4	5	7	6	1
Integral calc time – ch 9 (I)	J	4	5	13	6	1
Integr l calc time – ch 10 (I)	J	4	5	19	6	1
Integr l calc time – ch 11 (I)	J	4	5	25	6	1
Integr l calc time – ch 12 (I)	J	4	5	31	6	1
ARW of ch 1	J	4	6	73	6	1
ARW of ch 2	J	4	6	79	6	1
ARW of ch 3	J	4	6	85	6	1
ARW of ch 4	J	4	6	91	6	1
ARW of ch 5	J	4	6	97	6	1
ARW of ch 6	J	4	6	103	6	1
Balance of ch 1 (BAL)	J	4	6	1	6	1
Balance of ch 10 (BAL)	J	4	6	55	6	1
Balance of ch 11 (BAL)	J	4	6	61	6	1
Balance of ch 12 (BAL)	J	4	6	67	6	1
Balance of ch 2 (BAL)	J	4	6	7	6	1
Balance of ch 3 (BAL)	J	4	6	13	6	1
Balance of ch 4 (BAL)	J	4	6	19	6	1
Balance of ch 5 (BAL)	J	4	6	25	6	1
Balance of ch 6 (BAL)	J	4	6	31	6	1
Balance of ch 7 (BAL)	J	4	6	37	6	1
Balance of ch 8 (BAL)	J	4	6	43	6	1
Balance of ch 9 (BAL)	J	4	6	49	6	1
ARW of ch 10	J	4	7	19	6	1
ARW of ch 11	J	4	7	25	6	1

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
ARW of ch 12	J	4	7	31	6	1
ARW of ch 7	J	4	7	1	6	1
ARW of ch 8	J	4	7	7	6	1
ARW of ch 9	J	4	7	13	6	1
TC of ch 1	J	4	7	37	6	1
TC of ch 10	J	4	7	91	6	1
TC of ch 11	J	4	7	97	6	1
TC of ch 12	J	4	7	103	6	1
TC of ch 2	J	4	7	43	6	1
TC of ch 3	J	4	7	49	6	1
TC of ch 4	J	4	7	55	6	1
TC of ch 5	J	4	7	61	6	1
TC of ch 6	J	4	7	67	6	1
TC of ch 7	J	4	7	73	6	1
TC of ch 8	J	4	7	79	6	1
TC of ch 9	J	4	7	85	6	1
Hi-speed judge switch (1)	J	4	8	1	2	1
Hi-speed judge switch (2)	J	4	8	3	2	1
Hi-speed judge switch (3)	J	4	8	5	2	1
Hi-speed judge switch (4)	J	4	8	7	2	1
Hi-speed judge switch (5)	J	4	8	9	2	1
Hi-speed mon scrw pos (1)	J	4	8	11	6	1
Hi-speed mon scrw pos (2)	J	4	8	17	6	1
Hi-speed mon scrw pos (3)	J	4	8	23	6	1
Hi-speed mon scrw pos (4)	J	4	8	29	6	1
Hi-speed mon scrw pos (5)	J	4	8	35	6	1
Hi-speed mon time pos (1)	J	4	8	41	6	1
Hi-speed mon time pos (2)	J	4	8	47	6	1
Hi-speed mon time pos (3)	J	4	8	53	6	1
Hi-speed mon time pos (4)	J	4	8	59	6	1
Hi-speed mon time pos (5)	J	4	8	65	6	1
Screw back pos (ABS)	J	4	8	71	6	1
Lower inj press hi-spd (1)	J	4	9	31	6	1
Lower inj press hi-spd (2)	J	4	9	37	6	1
Lower inj press hi-spd (3)	J	4	9	43	6	1
Lower inj press hi-spd (4)	J	4	9	49	6	1
Lower inj press hi-spd (5)	J	4	9	55	6	1
Upper inj press hi-spd (1)	J	4	9	1	6	1
Upper inj press hi-spd (2)	J	4	9	7	6	1
Upper inj press hi-spd (3)	J	4	9	13	6	1
Upper inj press hi-spd (4)	J	4	9	19	6	1
Upper inj press hi-spd (5)	J	4	9	25	6	1
Constant period	L	5	0	3	4	1

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
Pressure source	L	5	0	1	1	1
Sampling time	L	5	0	2	1	1
Shot count	L	5	0	7	8	1
Alarm code	L	5	4	71	4	1
Barrel 1 temperature	L	5	4	109	6	1
Barrel 2 temperature	L	5	4	115	6	1
Barrel 3 temperature	L	5	4	121	6	1
Barrel 4 temperature	L	5	4	127	6	1
Barrel 5 temperature	L	5	4	133	6	1
Container number	L	5	4	163	8	1
Curent cushion	L	5	4	21	6	1
Current cycle time	L	5	4	3	6	1
Current fill time	L	5	4	9	6	1
Current recovery time	L	5	4	15	6	1
Extruder position	L	5	4	27	6	1
Extruder start position	L	5	4	145	6	1
Feed throat temperature	L	5	4	139	6	1
Good parts	L	5	4	47	8	1
Hi-speed monitor pos (1)	L	5	4	187	6	1
Hi-speed monitor pos (2)	L	5	4	205	6	1
Hi-speed monitor pos (3)	L	5	4	223	6	1
Hi-speed monitor pos (4)	L	5	4	241	6	1
Hi-speed monitor pos (5)	L	5	4	258	6	1
Hi-speed monitor press (1)	L	5	4	193	6	1
Hi-speed monitor press (2)	L	5	4	211	6	1
Hi-speed monitor press (3)	L	5	4	229	6	1
Hi-speed monitor press (4)	L	5	4	247	6	1
Hi-speed monitor press (5)	L	5	4	265	6	1
Hi-speed monitor time (1)	L	5	4	181	6	1
Hi-speed monitor time (2)	L	5	4	199	6	1
Hi-speed monitor time (3)	L	5	4	217	6	1
Hi-speed monitor time (4)	L	5	4	235	6	1
Hi-speed monitor time (5)	L	5	4	253	6	1
Lot number	L	5	4	155	8	1
Machine status	L	5	4	1	2	1
Mold file number	L	5	4	151	4	1
Mold 1 temperature	L	5	4	85	6	1
Mold 2 temperature	L	5	4	91	6	1
NG parts	L	5	4	55	8	1
Nozzle 1 temperature	L	5	4	97	6	1
Nozzle 2 temperature	L	5	4	103	6	1
Parts to go	L	5	4	63	8	1
Peak injection pressure	L	5	4	33	6	1

Parameter	Roboshot CMD 1	Mattec SBC1	Mattec SBC2	Offset	Length	Gain
Products month	L	5	4	171	2	1
Products number	L	5	4	173	4	1
Shot count (reset)	L	5	4	39	8	1
V-P transfer position	L	5	4	75	6	1
Run time (alarm)	L	5	6	19	6	1
Run time (auto)	L	5	6	13	6	1
Run time (mach reset)	L	5	6	37	6	1
Run time (mach total)	L	5	6	31	6	1
Run time (manual)	L	5	6	1	6	1
Run time (prod completed)	L	5	6	25	6	1
Run time (stand-by)	L	5	6	7	6	1

ROBO SHOT COMMUNICATIONS

TURNING ON COMMUNICATIONS

1. PRESS **“PROCESS MONITOR.”**
2. PRESS **“PROD MANAGEMENT”** BUTTON (BUTTON SCREEN).
3. PRESS THE **“ARROW”** BUTTON DOWN TO **“GROUP MAN.”**
4. CHANGE IT TO **“ON”**

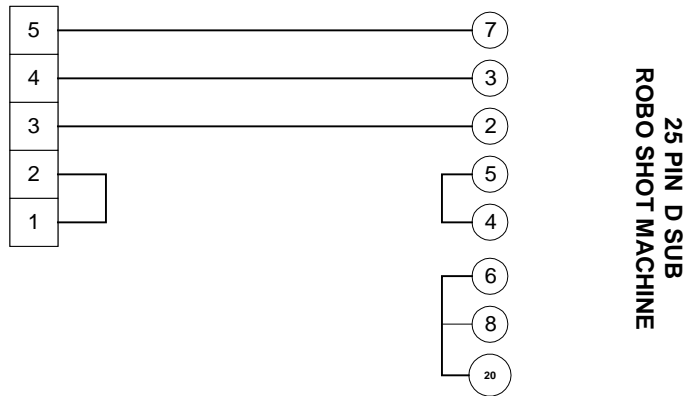
TO THE RIGHT IT SHOWS **“COM – 0”**

IF IT SHOWS **“COM – 1”**

THERE IS A PROBLEM WITH THE MACHINE OR COMM CARD

COM-0 **MEANS ACTIVE**
COM-1 **MEANS NON-ACTIVE**

10x 98 / TSMIU



Robo Shot PLC Set up

1. Power Machine Off
2. Press and hold Alarm button and Maintenance button together.
3. Turn power for Machine "ON".
It should come up to menu #45 (top left hand corner)
4. Set system to 4800 BAUD
CH 1 is for front 25 pin d sub
CH 2 is for back 25 pin d sub

Instructions For Setting Up + 24 Volts Signal

1. Press external I / O button.
2. Bottom of screen press STATUS button.
3. Pick from signals A – H on screen. (example.... B)
4. Press "ON" at the bottom of the screen.
5. Arrow over to choose one signal from numbers 1 – 32. (example...19)
6. Press "INPUT" button.
7. "EXIT" out of the menus, then "POWER OFF" then "POWER UP."